

REMARKS

Summary of the Office Action

Claims 14-17 have been rejected under 35 U.S.C. 112, second paragraph, for allegedly failing to particularly point out and distinctly claim the invention.

Claims 15-16 have been rejected under 35 U.S.C. 101 for allegedly improperly defining a process.

Claims 1-17 have been rejected under 35 U.S.C. 103(a) as allegedly obvious over U.S. Patent No. 6,547,801 to Dargent et al. ("Dargent") in view of U.S. Patent No. 6,889,086 to Mass et al. ("Mass") and of U.S. Patent No. 6,527,701 to Sayet et al. ("Sayet").

Applicant's Response

A. The Rejection under 35 U.S.C. 112

Claim 13 has been amended to correct a typographical error.

Claim 14 has been amended to recite that "the moveable member is structured for constricting a passageway." As amended, claim 14 points out and distinctly claims a feature of Applicants' invention.

Claims 15-17 have been canceled, therefore, the rejection of these claims is now moot.

B. The rejection under 35 U.S.C. 103(a)

Applicants submit that claims 1-14 are patentable under 35 U.S.C. 103(a) over the prior art of record at least for the reasons described below.

Applicants' invention is directed to an intracorporeal device that includes a stepper motor, a moveable member actuated by the stepper motor, and an oscillator connected to the stepper motor. Information on the moveable member is fed-back to an external controller using passive telemetry, based on feedback signals generated by the oscillator, which is connected to the stepper motor. No shaft encoders nor sensors, and, therefore, no microprocessors, are required to determine the status of the actuation of the moveable member by stepper motor. *Applicants' Abstract*; paragraphs [0022], [0080], [0081]; Fig. 4.

By contrast, Dargent teaches an implantable constriction device having a tractile element that is actuated by an intracorporeal induction coil, magnetically connected to an extracorporeal resonance coil. *Dargent*, Abstract; Col. 4, lines 1-14; FIG. 5. The Examiner acknowledges that Dargent does not teach the use of a stepper motor nor the use of passive telemetry in intracorporeal devices. Applicants also submit that Dargent does not teach providing feed-back from the intracorporeal device to the extracorporeal device. In particular, Dargent does not teach feeding back information on the operation of a moveable member in an intracorporeal device without processing that information through a microprocessor.

The deficiencies in Dargent are not resolved by combining the disclosure of Dargent with those of Maas and Sayet. Mass teaches a passive telemetry system that includes a microprocessor that operates as a controller of the device and that supervises collection of data. *Mass*, Col. 2, line 67 - Col. 3, line 4; Col. 3, lines 51-55; FIG. 1. Sayet instead teaches an implantable apparatus for controlling fluid flow within a host body, which includes a constricting member

having a plunger member for reducing fluid flow and which includes a stepper motor in certain embodiments. Sayet, Abstract; Col. 3, line 63 - Col. 4, line 13; Col. 5, lines 4-11.

Neither Maas nor Sayet teach the actuation of a moveable member in an intracorporeal device by passive telemetry, and neither Maas nor Sayet teach that feedback by passive telemetry can be provided through an oscillator that is influenced by a signal derived from, or supplied to, a stepper motor without processing by a microprocessor situated in the implant, but instead by correlating actuation with the number of pulses provided to the motor coils.

Because the combination of Dargent, Maas, and Sayet provides no teaching or suggestion that would have motivated one skilled in the art to develop an implantable device that includes the features of Applicants' invention, withdrawal of the rejection of independent claim 1 under 35 U.S.C. 103(a) is respectfully requested. Claims 2-14 depend from claim 1 and are allowable over the prior art of record at least for the same reasons as claim 1.

C. New Claims

Independent claim 18 is directed to a method for operating an implantable device having the limitations of the device of claim 1. Support for this claim is found in the specification, e.g. at paragraphs [0017]-[0022].

Dependent claim 19 is directed to the nature of the signal provided to the stepper motor. Support for this claim is found in the specification, e.g. at paragraph [0023].

Dependent claim 20 is directed to using an absorption modulator to provide information feedback. Support

for this claim is found in the specification, e.g. at paragraph [0066].

Dependent claim 21 is directed to having the signal modify the frequency of the oscillator. Support for this claim is found in the specification, e.g. at paragraph [0078].


Dependent claim 22 is directed to influencing the oscillator through a detector that detects a reference position of the actuator. Support for this claim is found in the specification, e.g. at paragraphs [0075]-[0080].

Conclusion

In view of the foregoing amendment and comments, Applicants respectfully submit that the present application is now in condition for allowance. An early and favorable reply is earnestly requested.

Dated: December 18, 2006

Respectfully submitted,



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